

ABSTRACT

5 The present invention provides for methods of screening agents for cancer therapeutic and prophylactic activity. In particular embodiments, cells of the cellular slime mold *Dictyostelium discoideum* are contacted with candidate agents and the expression of genes in the Nucleotide Excision Repair (NER) and Base Excision Repair (BER) pathways are examined. Such genes include the helicases *repB* and *repD*, and the apurinic-apyrmidinic endonuclease APE.

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